Bruhat Bangalore Mahanagara Palike

Executive Engineer Yelahanka Division

Name of Work: Improvements to roads and drains at Suggappa layout and surrounding area in ward no:05 Yelahanka New Town Sub Division

						Estimate Cost		25.00 Lakhs
Description of Items	**No**	**Length**	**Width**	**Depth**	**Quantity**	**Unit**	**Rate**	**Amount**
Removing and Resetting of **Footpath Slab (Approved Rate)**								
Approved Basic Rate	235.00							
Area Weightage 10%	23.50							
Total Rate	**258.50**							
Desilt								
Suggappa Layout								
Cross Rd-1	2	198.00	0.90		356.40			
Cross Rd-2	2	136.00	0.90		244.80			
Cross Rd-3	2	106.00	0.90		190.80			
Cross Rd-4	2	52.00	0.90		93.60			
					885.60			
Deduct/Missing Slab 30%					265.68			
					619.92	**Sqm**	**258.50**	**160249.32**
Earth work **excavation by manual means for drains**,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work . Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kankar/Moorum.(Tipper 5.5 m3) (V-I.No 1.4,Page No-5 PWD SR 2021-22) & (V-III Page No.3, Item No.1.1 A of PWD SR 2021-22)								
Basic Rate	186.00							
Loading And Unloading	118.00							
Sub Total	304.00							
Area Weightage 10%	30.40							
Total Rate	**334.40**							
RCC Drain								
Suggappa Layout								
	1	30.00	1.50	1.20	54.00			
Desilt								
Suggappa Layout								
Cross Rd-1	2	198.00	0.60	0.45	106.92			
Cross Rd-2	2	136.00	0.60	0.45	73.44			
Cross Rd-3	2	106.00	0.60	0.40	50.88			
Cross Rd-4	2	52.00	0.60	0.45	28.08			
					313.32	**Cum**	**334.40**	**104774.21**
Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) **Mix 1:3:6 (M10) Using 40 mm** nominal size graded crushed coarse aggregates (V-1, P.No-15, I No-2.1.3 of PWD SR 2021-22)(Issue rate on 07-07-22)								
Basic Rate	5554.00							
Area Weightage 10%	555.40							
Total Rate	6109.40							
RCC Drain								
Suggappa Layout								
	1	30.00	1.50	0.15	6.75			
					6.75	Cum	6109.40	41,238.45

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Supplying, **Fitting and Placing un-coated TMT bar** Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22) (Issue rate on 07-07-22)								
Basic Rate	92170.00							
Area Weightage 10%	9217.00							
Total Rate	101387.00							
For RCC Drain, 60kg/Cum	1	13.50	60.00		810.00			
					810.00			
					0.81	Tn	101387.00	82,123.47
Providing and laying in position **Reinforced cement concrete** for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) **M20 Design Mix Using 20 mm** nominal size graded crushed coarse aggregates (V-I,P.No.17, I.No.2.4.2 of PWD SR 2021-22) Apendx I, V-I P.No-115)(Issue rate on 07-07-22)									
Basic Rate	5968.00							
5% Centring	298.40							
Sub Total	6266.40							
Area Weightage 10%	626.64							
Total Rate	6893.04							
RCC Drain Raft								
Suggappa Layout								
	1	30.00	1.20	0.15	5.40			
RCC Drain Wall								
Suggappa Layout								
	2	30.00	0.15	0.90	8.10			
					13.50			
					13.50	Cum	6893.04	93056.04
Providing and fixing precast reinforced cement concrete covering slabs of 10Cm thick made of M25 with OPC cement,@340kgs/cum with 20mm and down size graded granite metal coarse aggregate @0.70cum and fine aggregate & 0.74 cum with superplasticizer machine,mixed, Inculding providing and removing centering, shuttering, strutting propping etc., for edges of slabs with TMT steel (Fe500) cost of all materials, labour, all lead and lift, HOM of machinery, curing, including cost of reinforcement etc., complete as directed by the Engineer in charge of the work.(Exclusive of GST and Area Loading Charges)									
Data Rate	2072.00							
RCC Drain Covering Slabs								
Suggappa Layout								
	1	30.00	1.20		36.00			
Missing/Damage Qty from Item No-1					265.68			
					301.68	Sqm	2072.00	625080.96
Earth work in surface **excavation by mechanical means** for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work ((V-I, P.No-8, I No-1.12 of PWD SR 2021-22)									
Basic Rate	65.00							
Area Weightage 10%	6.50							

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Total Rate	71.50							
phalt Road								
t Portion								
ggappa Layout								
oss Rd-1	1	198.00	0.80	0.30	47.52			
oss Rd-3	1	70.00	0.90	0.30	18.90			
					66.42	Cum	71.50	4,749.03
nstruction of **Granular Sub-Base of** required grading as per design mixing in a mechanical mix plant at MC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared rface and compacting with vibratory power roller to achieve the desired density, complete as per clause 1 .(V-III, I No-4.1V,P No-19,KPWD SR 2021-22)								
Basic Rate	2347.00							
Area Weightage 10%	234.70							
Total Rate	2581.70							
phalt Road								
t Portion								
ggappa Layout								
oss Rd-1	1	198.00	0.80	0.15	23.76			
oss Rd-3	1	70.00	0.90	0.15	9.45			
					33.21	Cum	2581.70	85,738.26
oviding, laying, spreading and compacting graded stone aggregate to **wet mix macadam** specification cluding premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by pper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface nd compacting with vibratory roller to achieve the desired density (V-III, P.No-24,I No-4.27A)of PWD SR 021-22).								
Basic Rate	2394.00							
Area Weightage 10%	239.40							
Total Rate	2633.40							
sphalt Road								
ut Portion								
uggappa Layout								
Cross Rd-1	1	198.00	0.80	0.225	35.64			
Cross Rd-3	1	70.00	0.90	0.225	14.18			
					49.82	Cum	2633.40	131182.82
Providing and applying **primer coat** with SS1 grade Bitumen Emulsion on prepared surface of granular base ncluding cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means. (V-III, P.No-29,I No-5.1(i) of PWD SR 2021-22).(Issue rate on 07-07-22)								
Basic Rate	42.00							
Area Weightage 10%	4.20							
Total Rate	46.20							
Asphalt Road								
Cut Portion								
Suggappa Layout								
Cross Rd-1	1	198.00	0.80		158.40			
Cross Rd-3	1	70.00	0.90		63.00			
					221.40	Sqm	46.20	10,228.68
Providing and applying **tack coat** with VG-10 Bitumen using pressure distributor at the rate of 0.20 kg/m2on the prepared bituminous surface cleaned with mechanical broom.(V-III, P.No-145,I No-21A-3 of PWD SR 2021-22).(Issue rate on 07-07-22)								
Basic Rate	12.00							
Area Weightage 10%	1.20							
Total Rate	13.20							
Asphalt Road								

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
ggappa Layout								
ross Rd-1	1	198.00	5.00		990.00			
ross Rd-3	1	70.00	5.00		350.00			
					1340.00	Sqm	13.20	17,688.00
roviding and laying **Dense Graded Bituminous Macadam** with 40/60 TPH capacity HMP using crushed ggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total ix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required rade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the esired compaction as per MoRTH specification clause No. 505 complete in all respects. (V-III, P.No-33,I No-.12C of PWD SR 2021-22).(Issue rate on 07-07-22)								
Basic Rate	**9139.00**							
Area Weightage 10%	**913.90**							
Total Rate	**10052.90**							
sphalt Road								
uggappa Layout								
ross Rd-1	1	198.00	0.80	0.05	7.92			
ross Rd-3	1	70.00	0.90	0.05	3.15			
					11.07	Cum	10052.90	111285.60
roviding and laying **Bituminous Concrete with 40/60 TPH** capacity hot mix plant using crushed aggregates f specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting he hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, olling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (V-III, P.No.36, I.No.5.16C of PWD SR 2021-2).(Issue rate on 07-07-22)								
Basic Rate	**9827.00**							
Area Weightage 10%	**982.70**							
Total Rate	**10809.70**							
Asphalt Road								
Suggappa Layout								
Cross Rd-1	1	198.00	5.00	0.04	39.60			
Cross Rd-3	1	70.00	5.00	0.04	14.00			
					53.60	Cum	10809.70	579399.92
Providing and laying of **hot applied thermoplastic compound** 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes.(V-III,I No-8.15, P.No-57 of KPWD SR 2021-22)								
Basic Rate	**478.00**							
Area Weightage 10%	**47.80**							
Total Rate	**525.80**							
Asphalt Road								
Suggappa Layout								
Cross Rd-1	2	198.00	0.10		39.60			
Cross Rd-3	2	70.00	0.10		14.00			
					53.60	Sqm	525.80	28,182.88
Cost of Haulage Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km(V-III Page No.3, Item No.1.4A of PWD SR 2021-22)								
Basic Rate	**12.00**							
8KM Lead = 12*8	**96.00**							
Area Weightage 10%	**9.60**							
Total Rate	**105.60**							
Qty frm Item No-2		313.32	1.28		401.05			
Qty frm Item No-7		66.42	1.28		85.02			
					401.05	t.Km	105.60	42,350.84

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Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
							Total Construction Cost	2117328.48
							18% GST for Construction Cost	381119.13
							Sub Total	2498447.60
							Utility Shifting,Miscellaneous and Rounding off	1,552.40
							GRAND TOTAL	2500000.00

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2021-2022, Issue rates dated 07-07-2022 and Data Rates

Assistant Engineer
Ward No-02
BBMP Bangalore

Asst. Executive Engineer,
Yelahanka New Town Sub Division
BBMP Bangalore

Executive Engineer,
Yelahanka Division
BBMP Bangalore

Administrative Approval
Accorded For ....25.00 Lakhs
Head of A/C....P-3726....
CER NO :....84..... Dt:..22/8/22

EA

CE (Y&K)

Technical Sanction
Accorded For ...25.00 Lakhs.
Head of A/C....P-3726....
CER NO :....88..... Dt:..22/8/22

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